

CLIPPEDIMAGE= JP404240792A

PAT-NO: JP404240792A

DOCUMENT-IDENTIFIER: JP 04240792 A

TITLE: MANUFACTURE OF CIRCUIT BOARD

PUBN-DATE: August 28, 1992

INVENTOR-INFORMATION:

NAME

YAMAMOTO, TORU

TSUKAMOTO, KATSUhide

ISOMI, AKIRA

ASSIGNEE-INFORMATION:

NAME

MATSUSHITA ELECTRIC IND CO LTD

COUNTRY

N/A

APPL-NO: JP03006999

APPL-DATE: January 24, 1991

INT-CL (IPC): H05K003/20

ABSTRACT:

PURPOSE: To print a pattern whose line width is fine, whose film is thick and in which the surface of a transcribed ink is flat by transcribing an organometallic ink nearly completely onto an object to be printed via a curing resin from the groove part in an intaglio and to form a circuit board having a fine pattern at low costs by baking the pattern.

CONSTITUTION: An intaglio 11 having a mold-releasing layer 12 is filled with an organometallic ink 13; the ink is dried a little by using a drier; after that, a curing resin such as a photoreactive resin or the like is made to flow on the intaglio; a substrate 21 is pasted slowly on it so that no

air bubble creeps.

The curing resin is hardened; a hardened resin layer 31 is formed. Then, the substrate is stripped slowly from the end part of the intaglio; the organometallic ink is transcribed. The substrate is baked in the air; a metal resinate is metallized; a circuit board is manufactured.

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CLIPPEDIMAGE= JP410242324A

PAT-NO: JP410242324A

DOCUMENT-IDENTIFIER: JP 10242324 A

TITLE: ELECTRODE-BUILT-IN CERAMIC SUBSTRATE AND  
MANUFACTURE THEREOF

PUBN-DATE: September 11, 1998

INVENTOR-INFORMATION:

NAME

KUDO, YASUTO

ASSIGNEE-INFORMATION:

NAME

SUMITOMO METAL MINING CO LTD

COUNTRY

N/A

APPL-NO: JP09041046

APPL-DATE: February 25, 1997

INT-CL (IPC): H01L023/12;H05K003/46

ABSTRACT:

PROBLEM TO BE SOLVED: To avoid cracking by setting the height of built-in electrodes within a specified range and providing at least one hole of the same shape as that of the electrode.

SOLUTION: An electrode-surrounding green sheet 1 has holes 2 fitted to the shape and size of electrodes 9, an auxiliary green sheet 3 is placed on the sheet 1 and integrated therewith, a conductive paste 4 is fed in the holes 2, the surfaces of the paste 4 and green sheet 1 are planarized while wiring green sheets 5 are formed and stacked on the sheet 1 with the green sheet 3 placed as an outermost layer and sintered under a given condition into a unified sheet,

and the unsintered auxiliary sheet 3 is removed to form an electrode structure where if the electrodes 9 are over  $50\mu$  high, the cracking can be greatly improved.

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CLIPPEDIMAGE= JP406267963A

PAT-NO: JP406267963A

DOCUMENT-IDENTIFIER: JP 06267963 A

TITLE: METHOD OF FORMING BUMP ELECTRODE IN SEMICONDUCTOR PART

PUBN-DATE: September 22, 1994

INVENTOR-INFORMATION:

NAME

UEDA, SHIGEYUKI

ASSIGNEE-INFORMATION:

NAME

ROHM CO LTD

COUNTRY

N/A

APPL-NO: JP05057096

APPL-DATE: March 17, 1993

INT-CL (IPC): H01L021/321

US-CL-CURRENT: 438/614,438/FOR.343

ABSTRACT:

PURPOSE: To form gold bumps on electrodes of a semiconductor device at low cost without growing a hillock.

CONSTITUTION: The surface of a transfer plate 1 is coated with a metallic paste in a tablet shape by screen printing step. Next, after the formation of bump electrodes 3b by heating and baking this metallic paste in the tablet shape on the transfer plate 1, these bump electrodes 3b are transferred from the transfer plate 1 to the electrode pads 5a on the semiconductor parts 5 to be junctioned with one another.

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CLIPPEDIMAGE= JP404221674A

PAT-NO: JP404221674A

DOCUMENT-IDENTIFIER: JP 04221674 A

TITLE: INTAGLIO PRINTING METHOD

PUBN-DATE: August 12, 1992

INVENTOR-INFORMATION:

NAME

YAMAMOTO, TORU

TSUKAMOTO, KATSUhide

ISOMI, AKIRA

ASSIGNEE-INFORMATION:

NAME

MATSUSHITA ELECTRIC IND CO LTD

COUNTRY

N/A

APPL-NO: JP02405747

APPL-DATE: December 25, 1990

INT-CL (IPC): B41M001/10

ABSTRACT:

PURPOSE: To form the fine pattern having a large area of the color filter of a liquid crystal display in low cost by printing a fine line width pattern in a thick film state by an intaglio printing so as to make the surface of transfer ink flat.

CONSTITUTION: An intaglio 11 having a release layer 12 is filled with ink 13 and, after the ink is slightly dried by a dryer, a curable resin such as an ultraviolet curable resin is cast on the intaglio and a glass substrate 21 is slowly laminated to the intaglio so as not to introduce air bubbles and the ultraviolet curable resin is irradiated with ultraviolet

rays through the glass  
substrate to be cured to form a transparent resin layer 31.

Next, the glass  
substrate is slowly released from the intaglio from the end  
part thereof to  
transfer the ink.

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